



United States  
Department of  
Agriculture

Forest  
Service

Arizona Zone  
Entomology and  
Pathology

2500 S. Pine Knoll Dr.  
Flagstaff, AZ 86001  
FAX: (520) 556-2130  
Voice: (520) 556-2073

File Code: 3410

Date: November 17, 2000

Route To:

Subject: 2000 Insect and Disease Aerial Detection Survey of the Apache-Sitgreaves  
National Forests

To: Forest Supervisor Apache-Sitgreaves National Forests

The annual insect and disease aerial detection survey was conducted over the Apache-Sitgreaves National Forest on July 20, 31, August 1, 16, 17, 18 and September 1, 2000. This letter provides a summary of the conditions observed during that flight.

Ponderosa pine mortality associated with western pine beetle increased from 165 acres in 1999 to 305 acres in 2000. The mortality was only seen in small pockets of 1 to 10 trees. Mortality due to *Ips* species increased as well, with 95 acres reported in 1999 and 476 in 2000. *Ips* killed trees were also found in small pockets of 1 to 10 trees. Tree mortality figures, especially *Ips* data, may be conservative for 2000 due to very late season fading of infested trees which may have occurred after our survey.

Douglas-fir mortality decreased from 358 acres in 1999 to 49 acres in 2000. The damage was concentrated in the Bear Wallow Wilderness. Pockets of mortality generally contained 1 to 10 trees. Spruce beetle mortality was recorded on 59 acres in 2000. True fir mortality due to a complex of insects and pathogens increased from 836 acres in 1999 to 1158 acres in 2000. The mortality was concentrated on the Sitgreaves side of the forest, mainly from Little Springs/Wildcat Canyons and west.

Aspen defoliation increased in 2000. A total of 11,990 acres of light and heavy defoliation was detected (light: 8,156 acres; and heavy: 3,834 acres). Only 3,284 acres of defoliation were recorded in 1999. Pockets of defoliation were seen throughout the forest where there was host type, with the majority being observed around Springerville.

Western spruce budworm defoliation was noted on only 20 acres in 2000, down from 248 in 1999. Only one pocket of light activity was recorded.

Spruce aphid populations reached outbreak levels in 2000. The majority of the activity was recorded on the Apache side of the forest with 51,261 acres of defoliation (light: 40,305 acres; and heavy: 10,956 acres). No spruce aphid activity had been noted in 1999.

This past year there was 59 acres of light defoliation in ponderosa pine caused by the Prescott scale and 14,172 acres of light defoliation caused by the ponderosa pine needle miner. Needle miner activity was again concentrated in the area surrounding Nutrioso. While the number of acres defoliated increased, the severity of the damage was not as great as in 1999.

Drought stress in ponderosa pine was recorded on 11,945 acres on the forest; and fire was recorded on 2,927 acres.



Electronic format copies of the map files and data are available to forest and district personnel for use on any projects where this information would be of value. Please forward this letter to the appropriate personnel.

If you have any questions concerning the survey or the information included here, please feel free to contact Bobbe Fitzgibbon (520-556-2072) or Steve Dudley (520-556-2071).

/s/ *John Anhold*

JOHN ANHOLD  
Arizona Zone Leader

cc: llucero/r3 psettles/r3  
dparker/r3 kklein/r3  
dallenreid/r3 fhayes/r3  
dbeal/r3 ecollins/r3  
jmacivor/r3

*E&P:B.Fitzgibbon:bf:11/15/00:(520)556/2072*